



**Using digital technology to support early years learning for pupils with
English as an Additional Language
ESRC DTP Collaborative Studentship**

School of Psychology, University of Nottingham and onebillion

The Midlands Graduate School is an accredited Economic and Social Research Council (ESRC) Doctoral Training Partnership (DTP). One of 14 such partnerships in the UK, the Midlands Graduate School is a collaboration between the University of Warwick, Aston University, University of Birmingham, University of Leicester, Loughborough University and the University of Nottingham.

The University of Nottingham as part of Midlands Graduate School is now inviting applications for an ESRC Doctoral Studentship in association with our collaborative partner onebillion – finalists in the Global Learning X prize – to commence in October 2018.

The proposed studentship will examine how digital technology can support learning in early years (EY) pupils with English as an Additional Language (EAL).

This research will draw upon an innovative child-centred, tablet-based, maths app with proven efficacy, developed by onebillion. Since the app provides the same curriculum-based content in 50 different languages, there is a unique opportunity to investigate how this may support EAL pupils in the early primary maths curriculum in their own first language. Multiple studies across cultures have indicated that first language instruction supports EAL learning but there is little if any research into the potential impact of tablet-based technology to support bilingual instruction in the EY.

Quantitative methods will be used to establish optimal implementation conditions for the app for raising learning outcomes, by comparing gains in maths (primary outcome) and English language (secondary outcome) for learners in controlled studies. Immediate and sustained learning gains will be measured using assessments of maths and English language skills, in EAL and English first language peers, before and after intervention periods.

Qualitative methods, including class observations, focus groups, and semi-structured interviews with parents, education staff, and school leadership, will be used to investigate:

- the fidelity of implementation
- facilitators of and barriers to successful implementation
- perceptions of dual language digital technology as a) an assessment tool and b) an educational intervention tool.

Findings will be integrated to illuminate models of best practice.

A systematic review of technology interventions to support bilingual learning will be conducted as well as a critique of existing assessments for measuring attainment of EY EAL pupils.

The proposed studentship will take place in Nottingham, a city with low SES, low attainment, and a high proportion of EAL learners.

The research will contribute to theoretical and practical knowledge regarding optimising educational provision for EAL learners and their teachers, supporting diversity and inclusion.

Application Process

To be considered for this PhD, please complete the Collaborative Studentship application form [available online here](#). Please submit this with a cover letter and CV, along with two references and email this to Christopher Atkinson, Christopher.atkinson@nottingham.ac.uk.

Application deadline: Friday 16th February 2018

Midlands Graduate School ESRC DTP

Our ESRC studentships cover fees and maintenance stipend and extensive support for research training, as well as research activity support grants. Support is available only to successful applicants who fulfil eligibility criteria. To check your eligibility, visit: www.mgsdtp.ac.uk/studentships/eligibility/.

Informal enquiries about the research or the School of Psychology Nottingham prior to application can be directed to nicola.pitchford@nottingham.ac.uk and anthea.gulliford@nottingham.ac.uk.